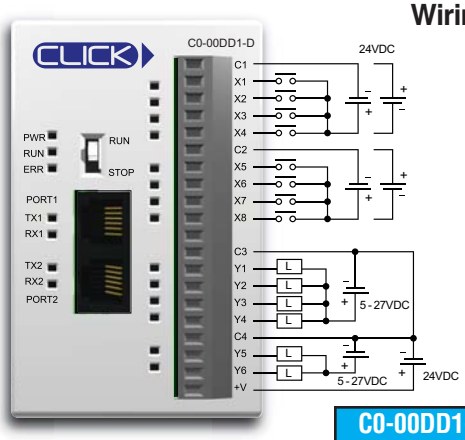
# CLICK CPU Module Specifications

## C0-00DD1-D

### 8 DC Inputs/6 Sinking DC Outputs

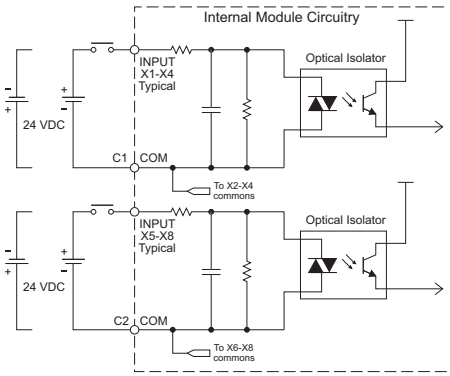
CLICK PLC CPU, 8 DC input/6 Sinking DC output, 8K steps total program memory, Ladder Logic programming, built-in RS232C programming port and additional RS232C Modbus RTU/ASCII communications port (configurable up to 115200 baud). Inputs: 8-pts 24 VDC Sink/Source inputs, 2 commons, isolated. Outputs: 6-pts 5-27 VDC Sinking outputs, 0.1 A/pt, 2 commons, isolated. Removable terminal block included, replacement ADC p/n C0-16TB.

### Wiring Diagram

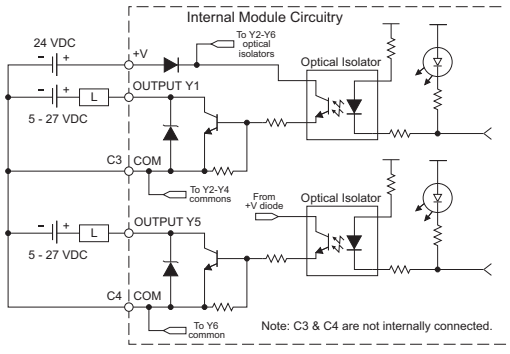



| C0-00DD1-D - 24 VDC Power | |
|---|---|
| *Current Consumption* | 120 mA |

### Equivalent Input Circuit



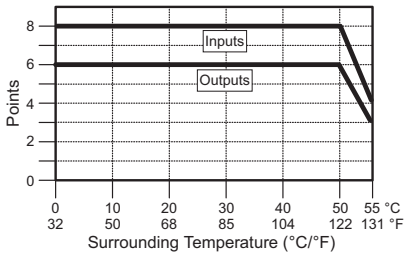

### Equivalent Output Circuit



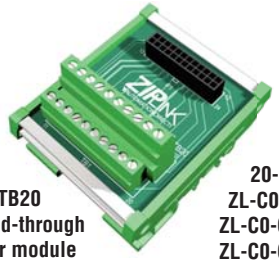

| C0-00DD1-D Built-in I/O Specifications - Inputs | |
|---|---|
| *Inputs per Module* | 8 (Sink/Source) |
| *Operating Voltage Range* | 24 VDC |
| *Input Voltage Range* | 21.6 - 26.4 VDC |
| *Input Current* | X1-2: Typ 5 mA @ 24 VDC<br>X3-8: Typ 4 mA @ 24 VDC |
| *Maximum Input Current* | X1-2: 6.0 mA @ 26.4 VDC<br>X3-8: 5.0 mA @ 26.4 VDC |
| *Input Impedance* | X1-2: 4.7 kΩ @ 24 VDC<br>X3-8: 6.8 kΩ @ 24 VDC |
| *ON Voltage Level* | X1-2: > 19 VDC<br>X3-8: > 19 VDC |
| *OFF Voltage Level* | X1-2: < 4 VDC<br>X3-8: < 7 VDC |
| *Minimum ON Current* | X1-2: 4.5 mA<br>X3-8: 3.5 mA |
| *Maximum OFF Current* | X1-2: 0.1 mA<br>X3-8: 0.5 mA |
| *OFF to ON Response* | X1-2: Typ 5 µs Max 20 µs<br>X3-8: Typ 2 ms Max 10 ms |
| *ON to OFF Response* | X1-2: Typ 5 µs Max 20 µs<br>X3-8: Typ 3 ms Max 10 ms |
| *Status Indicators* | Logic Side (8 points, green LED) |
| *Commons* | 2 (4 points/common) Isolated |

| C0-00DD1-D Built-in I/O Specifications - Outputs | |
|---|---|
| *Outputs per Module* | 6 (Sink) |
| *Operating Voltage Range* | 5-27 VDC |
| *Output Voltage Range* | 4-30 VDC |
| *Maximum Output Current* | 0.1 A/point; C3: 0.4 A/common,<br>C4: 0.2 A/common |
| *Minimum Output Current* | 0.2 mA |
| *Maximum Leakage Current* | 0.1 mA @ 30.0 VDC |
| *On Voltage Drop* | 0.5 VDC @ 0.1 A |
| *Maximum Inrush Current* | 150 mA for 10 ms |
| *OFF to ON Response* | Y1: typ 5 µs; max 20 µs<br>Y2-6: < 0.5 ms |
| *ON to OFF Response* | Y1: typ 5 µs; max 20 µs<br>Y2-6: < 0.5 ms |
| *Status Indicators* | Logic Side (6 points, red LED) |
| *Commons* | 2 (4 points/com & 2 points/com) Isolated |
| *External DC Power Required* | 20-28 VDC Maximum @ 60 mA<br>(All Points On) |

**C0-00DD1-D Temperature Derating Chart**




**ZipLink Pre-Wired PLC Connection Cables and Modules**



**ZL-RTB20**
**20-pin feed-through connector module**

**20-pin connector cable**
**ZL-C0-CBL20 (0.5 m length)**
**ZL-C0-CBL20-1 (1.0 m length)**
**ZL-C0-CBL20-2 (2.0 m length)**

# CLICK Specifications

## General specifications (all CLICK PLC products)

These general specifications apply to all CLICK CPUs, optional I/O modules, and optional power supply products. Please refer to the appropriate I/O temperature derating charts under both the CPU and I/O module specifications to determine best operating conditions based on the ambient temperature of your particular application.

| Environmental Specifications | |
|---|---|
| **Operating Temperature** | 32°F to 131°F (0°C to 55°C)<br>IEC 60068-2-14 (Test Nb, Thermal Shock) |
| **Storage Temperature** | –4°F to 158°F (–20°C to 70°C)<br>IEC 60068-2-1 (Test Ab, Cold)<br>IEC 60068-2-2 (Test Bb, Dry Heat)<br>IEC 60068-2-14 (Test Na, Thermal Shock) |
| **Ambient Humidity** | 30% to 95% relative humidity (non–condensing) |
| **Environmental Air** | No corrosive gases<br>The level for the environmental pollution is 2 (UL840) |
| **Vibration** | MIL STD 810C, Method 514.2<br>IEC60068-2-6<br>JIS C60068-2-6 (Sine wave vibration test) |
| **Shock** | MIL STD 810C, Method 516.2<br>IEC60068-2-27<br>JIS C60068-2-27 |
| **Noise Immunity** | Comply with NEMA ICS3-304<br>Impulse noise 1µs, 1000V<br>EN61000-4-2 (ESD)<br>EN61000-4-3 (RFI)<br>EN61000-4-4 (FTB)<br>EN61000-4-5 (Surge)<br>EN61000-4-6 (Conducted)<br>EN61000-4-8 (Power frequency magnetic field immunity)<br>RFI: No interference measured between 150-450MHz (5w/15cm) |
| **Emissions** | EN55011:1998 Class A |
| **Agency Approvals** | UL508 CE (EN61131-2) |
| **Other** | RoHS instruction conformity |

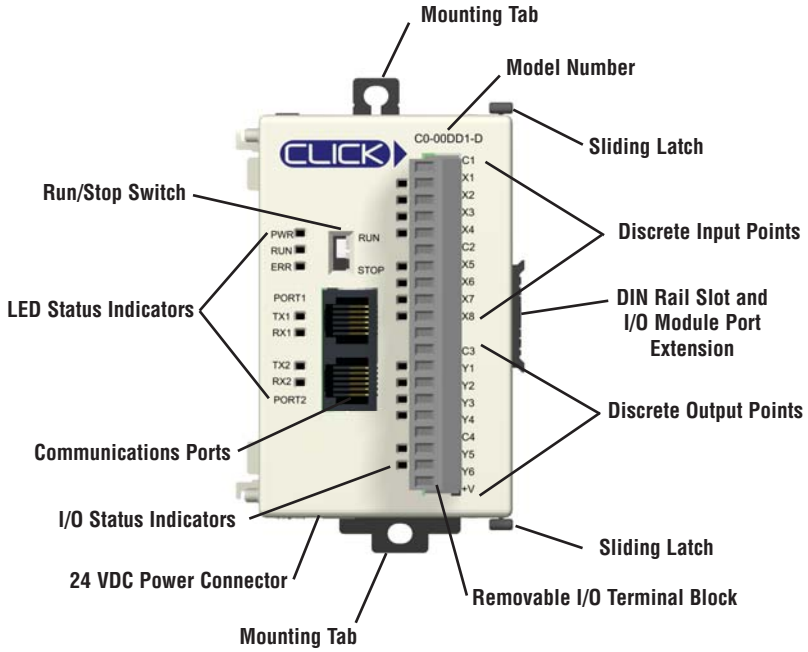
## CPU module specifications

These specifications apply to all the CPU modules.

| CPU Module Specifications | |
|---|---|
| ***Control Method*** | Stored Program/Cyclic execution method |
| ***I/O Numbering System*** | Fixed in Decimal |
| ***Ladder Memory (steps)*** | 8000 |
| ***Total Data Memory (words)*** | 8000 |
| ***Contact Execution (boolean)*** | < 0.6us |
| ***Typical Scan (1k boolean)*** | 1-2 ms |
| ***RLL Ladder Style Programming*** | Yes |
| ***Run Time Edits*** | No |
| ***Scan*** | Variable / fixed |
| ***CLICK Programming Software for Windows*** | Yes |
| ***Built-in Communication Ports (RS-232)*** | Yes (2) |
| ***FLASH Memory*** | Standard on CPU |
| ***Built-in Discrete I/O points*** | 8 inputs, 6 outputs |
| ***Number of Instructions Available*** | 21 |
| ***Control Relays*** | 2000 |
| ***Special Relays (system defined)*** | 1000 |
| ***Timers*** | 500 |
| ***Counters*** | 250 |
| ***Immediate I/O*** | Yes |
| ***Interrupts (external / timed)*** | Yes |
| ***Subroutines*** | Yes |
| ***For/Next Loops*** | Yes |
| ***Math (Integer and Floating Point)*** | Yes |
| ***Drum Sequencer Instruction*** | Yes |
| ***Internal Diagnostics*** | Yes |
| ***Password Security*** | Yes |
| ***System Error Log*** | Yes |
| ***User Error Log*** | Yes |
| ***Memory Backup*** | Super Capacitor |
| ***Battery Backup*** | No |
| ***I/O Terminal Block Replacement*** | ADC p/n C0-16TB |
| ***AC Power Terminal Block Replacement*** | ADC p/n C0-4TB |

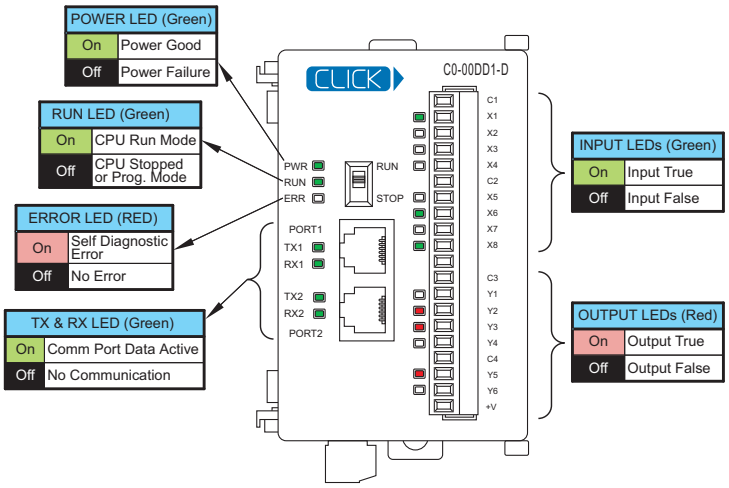
# CLICK Specifications

## CPU features



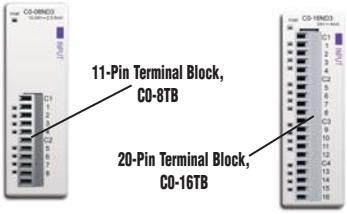

## CPU LED status indicators

CLICK LED Status Indicators




## I/O Terminal block specifications for CPUs and I/O Modules

| 11-pin Terminal Block Specifications | |
|---|---|
| ***Connector Type*** | Pluggable Terminal Block |
| ***Number of Pins*** | 11 pt |
| ***Pitch*** | 3.50 mm |
| ***Wire Range*** | 28-16 AWG |
| ***Wire Strip Length*** | 7 mm |
| ***Screw Size*** | M2.0 |
| ***Screw Torque*** | 2.0 to 2.2 lb-inch |
| ***ADC Part Number*** | C0-8TB |



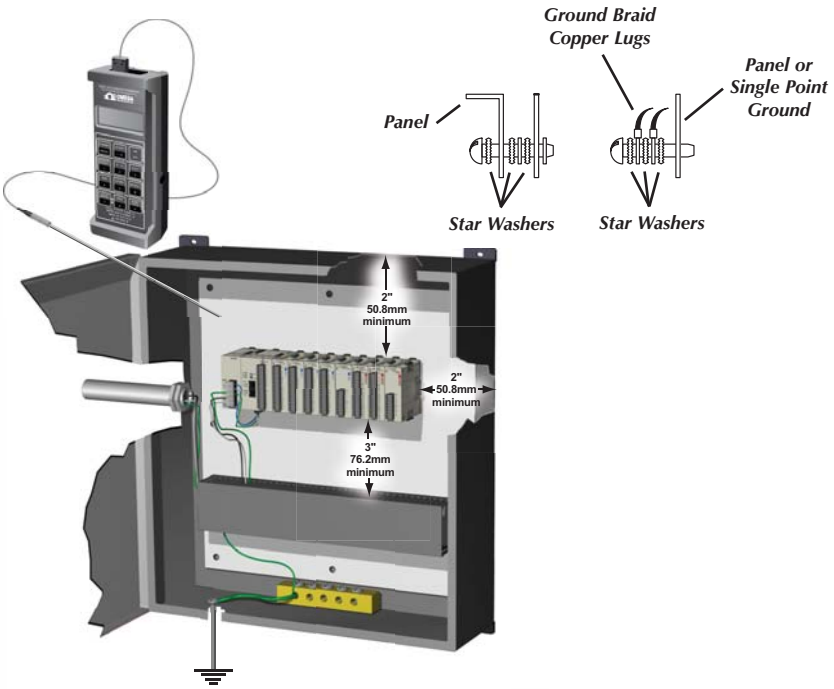

| 20-pin Terminal Block Specifications | |
|---|---|
| ***Connector Type*** | Pluggable Terminal Block |
| ***Number of Pins*** | 20 pt |
| ***Pitch*** | 3.50 mm |
| ***Wire Range*** | 28-16 AWG |
| ***Wire Strip Length*** | 7 mm |
| ***Screw Size*** | M2.0 |
| ***Screw Torque*** | 2.0 to 2.2 lb-inch |
| ***ADC Part Number*** | C0-16TB |

# Product Dimensions and Installation

It is important to understand the installation requirements for your CLICK system. Your knowledge of these requirements will help ensure that your system operates within its environmental and electrical limits.

## Plan for safety

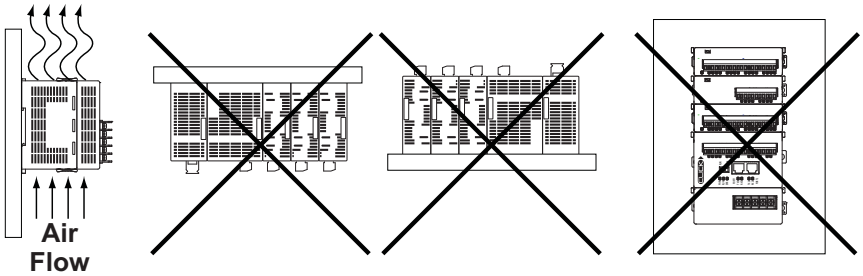
**This catalog should never be used as a replacement for the user manual.** You can purchase, download free, or view online the user manuals for these products. The C0-USER-M is the publication for the CLICK PLC. This user manual contains important safety information that must be followed. The system installation should comply with all appropriate electrical codes and standards.




***NOTE:*** *There is a mimimum clearance requirement of 2" (51 mm) between the CLICK PLC and the panel door or any devices mounted in the panel door. The same clearance is required between the PLC and any side of the enclosure. A minimum clearance of 3" (76 mm) is required between the PLC and a wireway or any heat producing device.*

## Mounting orientation

CLICK PLCs must be mounted properly to ensure ample airflow for cooling purposes. It is important to follow the unit orientation requirements and to verify that the PLC's dimensions are compatible with your application. Notice particularly the grounding requirements and the recommended cabinet clearances.

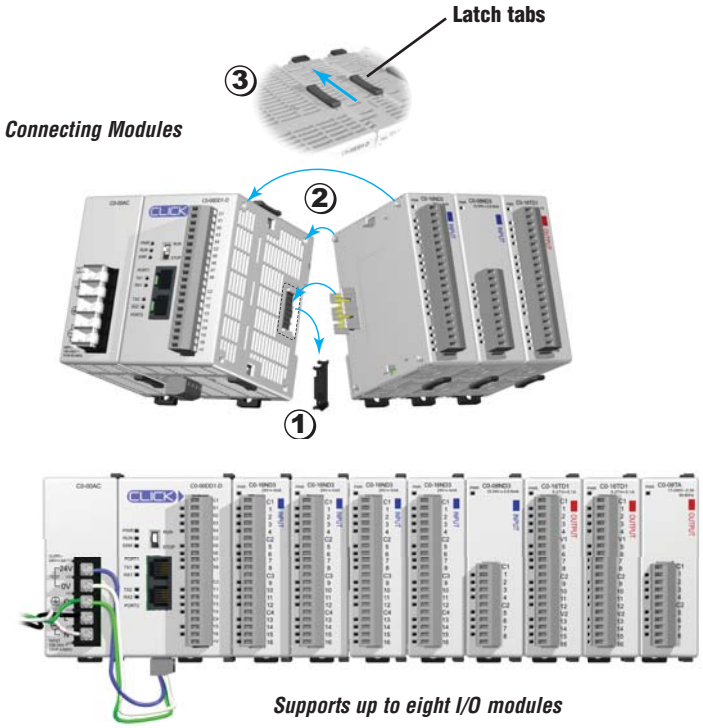


# Product Dimensions and Installation

## Connecting the modules together

CLICK CPUs, I/O modules and power supplies connect together using the extension ports that are located on the side panels of the modules (no PLC backplane/base required).

1) Remove extension port covers and slide the latch tabs forward.
2) Align the module pins and connection plug, and press the I/O module onto the right side of the CPU.
3) Slide the latch tabs backward to lock the modules together.



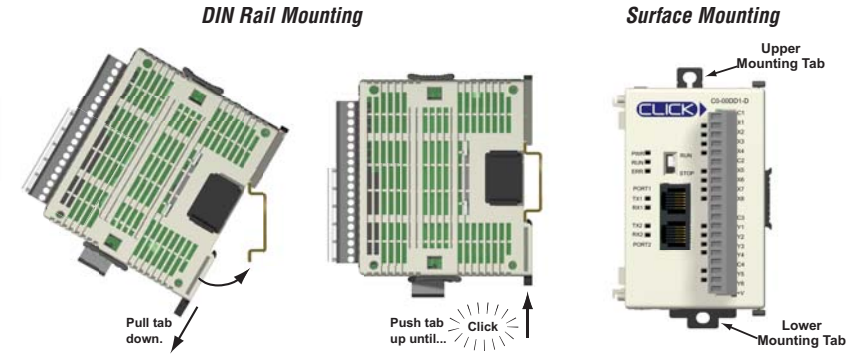

*Connecting Modules*

*Supports up to eight I/O modules*

## Mounting

The CLICK PLC system, which includes the CLICK power supplies, CPU modules, and I/O modules, can be mounted in one of two ways.

1) DIN rail mounted
2) Surface mounted using the built-in upper and lower mounting tabs.



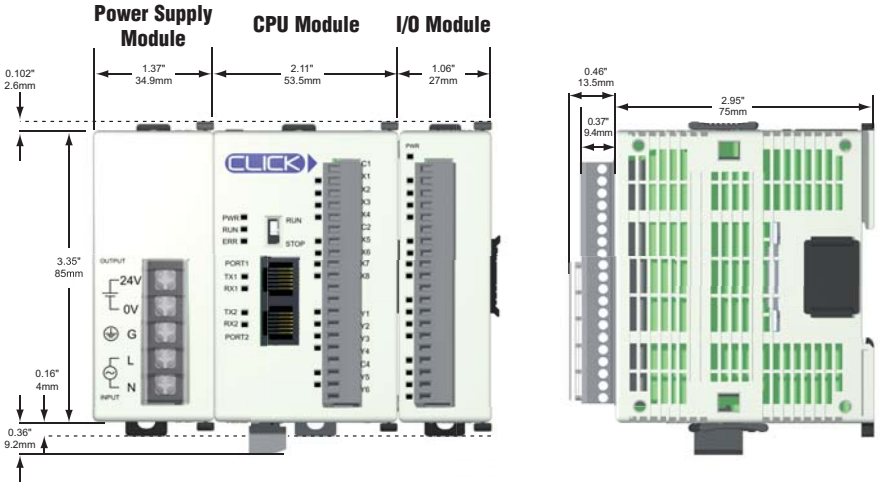

## Unit dimensions

These diagrams show the outside dimensions of the CLICK power suppy, CPU, and I/O modules. The CLICK PLC system is designed to be mounted on standard 35mm DIN rail, or it can be surface mounted.

Allow proper spacing from other components within an enclosure.

**Maximum system:**

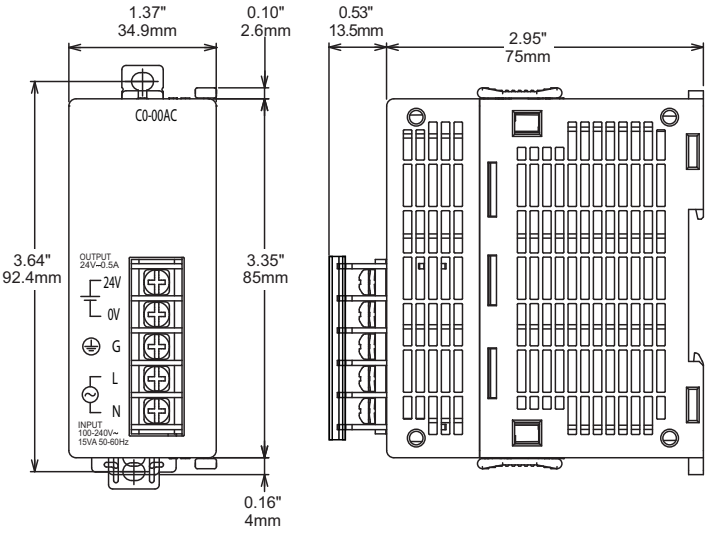
Power Supply + CPU + 8 I/O modules.



# Product Dimensions and Installation

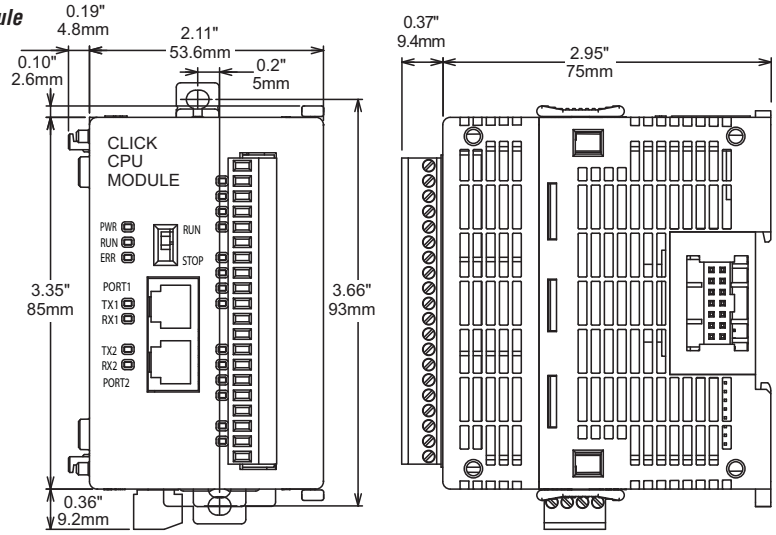
## Unit dimensions

***Power Supply***




***NOTE:*** *The dimensions for the C0-00AC and C0-01AC power supplies are the same.*

***CPU Module***




***I/O Module***